

A. Decloux

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P#32
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RAW SEQUENCE LISTING

PATENT APPLICATION: US/08/728,463B

DATE: 05/17/2001

TIME: 10:08:31

Input Set : A:\-90-2.app

Output Set: N:\CRF3\05172001\H728463B.raw

ENTERED

SEQUENCE LISTING

4 (1) GENERAL INFORMATION:
6 (i) APPLICANT: Lonberg, Nils
7 Kay, Robert M.
9 (ii) TITLE OF INVENTION: Transgenic Non-Human Animals for
10 Producing Heterologous Antibodies
12 (iii) NUMBER OF SEQUENCES: 409
14 (iv) CORRESPONDENCE ADDRESS:
15 (A) ADDRESSEE: Townsend and Townsend and Crew LLP
16 (B) STREET: Two Embarcadero Center, Eighth Floor
17 (C) CITY: San Francisco
18 (D) STATE: California
19 (E) COUNTRY: USA
20 (F) ZIP: 94111-3834
22 (v) COMPUTER READABLE FORM:
23 (A) MEDIUM TYPE: Floppy disk
24 (B) COMPUTER: IBM PC compatible
25 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
26 (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
28 (vi) CURRENT APPLICATION DATA:
C--> 29 (A) APPLICATION NUMBER: US/08/728,463B
C--> 30 (B) FILING DATE: 10-Oct-1996
31 (C) CLASSIFICATION:
89 (vii) PRIOR APPLICATION DATA:
34 (A) APPLICATION NUMBER: US 08/544,404
35 (B) FILING DATE: 10-OCT-1995
38 (A) APPLICATION NUMBER: US 08/352,322
39 (B) FILING DATE: 07-DEC-1994
42 (A) APPLICATION NUMBER: US 08/209,741
43 (B) FILING DATE: 09-MAR-1994
46 (A) APPLICATION NUMBER: US 08/165,699
47 (B) FILING DATE: 10-DEC-1993
50 (A) APPLICATION NUMBER: US 08/161,739
51 (B) FILING DATE: 03-DEC-1993
54 (A) APPLICATION NUMBER: US 08/155,301
55 (B) FILING DATE: 18-NOV-1993
58 (A) APPLICATION NUMBER: US 08/096,762
59 (B) FILING DATE: 22-JUL-1993
62 (A) APPLICATION NUMBER: US 08/053,131
63 (B) FILING DATE: 26-APR-1993
66 (A) APPLICATION NUMBER: US 07/990,860
67 (B) FILING DATE: 16-DEC-1992
70 (A) APPLICATION NUMBER: US 07/904,068
71 (B) FILING DATE: 23-JUN-1992
74 (A) APPLICATION NUMBER: US 07/853,408
75 (B) FILING DATE: 18-MAR-1992
78 (A) APPLICATION NUMBER: US 07/810,279

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79 (B) FILING DATE: 17-DEC-1991
82 (A) APPLICATION NUMBER: US 07/575,962
83 (B) FILING DATE: 31-AUG-1990
86 (A) APPLICATION NUMBER: US 07/574,748
87 (B) FILING DATE: 29-AUG-1990
90 (A) APPLICATION NUMBER: WO PCT/US91/06185
91 (B) FILING DATE: 29-AUG-1991
93 (viii) ATTORNEY/AGENT INFORMATION:
94 (A) NAME: Serafini, Andrew T.
95 (B) REGISTRATION NUMBER: 41,303
96 (C) REFERENCE/DOCKET NUMBER: 014643-009020US
98 (ix) TELECOMMUNICATION INFORMATION:
99 (A) TELEPHONE: (415) 576-0200
100 (B) TELEFAX: (415) 576-0300
103 (2) INFORMATION FOR SEQ ID NO: 1:
105 (i) SEQUENCE CHARACTERISTICS:
106 (A) LENGTH: 10 base pairs
107 (B) TYPE: nucleic acid
108 (C) STRANDEDNESS: single
109 (D) TOPOLOGY: linear
W--> 111 (ii) MOLECULE TYPE: DNA
114 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
116 CTAADTGGGG
119 (2) INFORMATION FOR SEQ ID NO: 2:
121 (i) SEQUENCE CHARACTERISTICS:
122 (A) LENGTH: 5 amino acids
123 (B) TYPE: amino acid
124 (C) STRANDEDNESS:
125 (D) TOPOLOGY: linear
127 (ii) MOLECULE TYPE: peptide
130 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
132 Asp Ala Phe Asp Ile
133 1 5
136 (2) INFORMATION FOR SEQ ID NO: 3:
138 (i) SEQUENCE CHARACTERISTICS:
139 (A) LENGTH: 5 amino acids
140 (B) TYPE: amino acid
141 (C) STRANDEDNESS:
142 (D) TOPOLOGY: linear
144 (ii) MOLECULE TYPE: peptide
147 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
149 Asp Tyr Phe Asp Tyr
150 1 5
153 (2) INFORMATION FOR SEQ ID NO: 4:
155 (i) SEQUENCE CHARACTERISTICS:
156 (A) LENGTH: 5 amino acids
157 (B) TYPE: amino acid
158 (C) STRANDEDNESS:
159 (D) TOPOLOGY: linear

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161      (ii) MOLECULE TYPE: peptide
164      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
166      Gly Ala Phe Asp Ile
167      1      5
170 (2) INFORMATION FOR SEQ ID NO: 5:
172      (i) SEQUENCE CHARACTERISTICS:
173          (A) LENGTH: 4 amino acids
174          (B) TYPE: amino acid
175          (C) STRANDEDNESS:
176          (D) TOPOLOGY: linear
178      (ii) MOLECULE TYPE: peptide
181      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
183      Lys Glu Arg Val
184      1
187 (2) INFORMATION FOR SEQ ID NO: 6:
189      (i) SEQUENCE CHARACTERISTICS:
190          (A) LENGTH: 4 amino acids
191          (B) TYPE: amino acid
192          (C) STRANDEDNESS:
193          (D) TOPOLOGY: linear
195      (ii) MOLECULE TYPE: peptide
198      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
200      Asn Asp Ser Val
201      1
204 (2) INFORMATION FOR SEQ ID NO: 7:
206      (i) SEQUENCE CHARACTERISTICS:
207          (A) LENGTH: 12 base pairs
208          (B) TYPE: nucleic acid
209          (C) STRANDEDNESS: single
210          (D) TOPOLOGY: linear
W--> 212      (ii) MOLECULE TYPE: RNA
215      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
217 AAAGAAAGAG UU 12
220 (2) INFORMATION FOR SEQ ID NO: 8:
222      (i) SEQUENCE CHARACTERISTICS:
223          (A) LENGTH: 12 base pairs
224          (B) TYPE: nucleic acid
225          (C) STRANDEDNESS: single
226          (D) TOPOLOGY: linear
W--> 228      (ii) MOLECULE TYPE: RNA
231      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
233 AACGACAGCG UU 12
236 (2) INFORMATION FOR SEQ ID NO: 9:
238      (i) SEQUENCE CHARACTERISTICS:
239          (A) LENGTH: 15 base pairs
240          (B) TYPE: nucleic acid
241          (C) STRANDEDNESS: single
242          (D) TOPOLOGY: linear
W--> 244      (ii) MOLECULE TYPE: DNA

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247      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
249 GAGCTGAGCT GGGGT                                     15
252 (2) INFORMATION FOR SEQ ID NO: 10:
254      (i) SEQUENCE CHARACTERISTICS:
255          (A) LENGTH: 20 base pairs
256          (B) TYPE: nucleic acid
257          (C) STRANDEDNESS: single
258          (D) TOPOLOGY: linear
W--> 260      (ii) MOLECULE TYPE: DNA
263      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
265 GAGCTGAGCT GAGCTGGGGT                                     20
268 (2) INFORMATION FOR SEQ ID NO: 11:
270      (i) SEQUENCE CHARACTERISTICS:
271          (A) LENGTH: 25 base pairs
272          (B) TYPE: nucleic acid
273          (C) STRANDEDNESS: single
274          (D) TOPOLOGY: linear
W--> 276      (ii) MOLECULE TYPE: DNA
279      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
281 GAGCTGAGCT GAGCTGAGCT GGGGT                                     25
284 (2) INFORMATION FOR SEQ ID NO: 12:
286      (i) SEQUENCE CHARACTERISTICS:
287          (A) LENGTH: 30 base pairs
288          (B) TYPE: nucleic acid
289          (C) STRANDEDNESS: single
290          (D) TOPOLOGY: linear
W--> 292      (ii) MOLECULE TYPE: DNA
295      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
297 GAGCTGAGCT GAGCTGAGCT GAGCTGGGGT                                     30
300 (2) INFORMATION FOR SEQ ID NO: 13:
302      (i) SEQUENCE CHARACTERISTICS:
303          (A) LENGTH: 35 base pairs
304          (B) TYPE: nucleic acid
305          (C) STRANDEDNESS: single
306          (D) TOPOLOGY: linear
W--> 308      (ii) MOLECULE TYPE: DNA
311      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:
313 GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GGGGT                                     35
316 (2) INFORMATION FOR SEQ ID NO: 14:
318      (i) SEQUENCE CHARACTERISTICS:
319          (A) LENGTH: 40 base pairs
320          (B) TYPE: nucleic acid
321          (C) STRANDEDNESS: single
322          (D) TOPOLOGY: linear
W--> 324      (ii) MOLECULE TYPE: DNA
327      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:
329 GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGGGGT                                     40
332 (2) INFORMATION FOR SEQ ID NO: 15:
334      (i) SEQUENCE CHARACTERISTICS:

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335          (A) LENGTH: 45 base pairs
336          (B) TYPE: nucleic acid
337          (C) STRANDEDNESS: single
338          (D) TOPOLOGY: linear
W--> 340      (ii) MOLECULE TYPE: DNA
343          (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:
345 GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GGGGT          45
348 (2) INFORMATION FOR SEQ ID NO: 16:
350      (i) SEQUENCE CHARACTERISTICS:
351          (A) LENGTH: 50 base pairs
352          (B) TYPE: nucleic acid
353          (C) STRANDEDNESS: single
354          (D) TOPOLOGY: linear
W--> 356      (ii) MOLECULE TYPE: DNA
359          (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:
361 GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGGGGT          50
364 (2) INFORMATION FOR SEQ ID NO: 17:
366      (i) SEQUENCE CHARACTERISTICS:
367          (A) LENGTH: 55 base pairs
368          (B) TYPE: nucleic acid
369          (C) STRANDEDNESS: single
370          (D) TOPOLOGY: linear
W--> 372      (ii) MOLECULE TYPE: DNA
375          (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:
377 GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GGGGT          55
380 (2) INFORMATION FOR SEQ ID NO: 18:
382      (i) SEQUENCE CHARACTERISTICS:
383          (A) LENGTH: 60 base pairs
384          (B) TYPE: nucleic acid
385          (C) STRANDEDNESS: single
386          (D) TOPOLOGY: linear
W--> 388      (ii) MOLECULE TYPE: DNA
391          (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:
393 GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGGGGT          60
396 (2) INFORMATION FOR SEQ ID NO: 19:
398      (i) SEQUENCE CHARACTERISTICS:
399          (A) LENGTH: 65 base pairs
400          (B) TYPE: nucleic acid
401          (C) STRANDEDNESS: single
402          (D) TOPOLOGY: linear
W--> 404      (ii) MOLECULE TYPE: DNA
407          (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19:
409 GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT GAGCTGAGCT          60
411 GGGGT          65
414 (2) INFORMATION FOR SEQ ID NO: 20:
416      (i) SEQUENCE CHARACTERISTICS:
417          (A) LENGTH: 70 base pairs
418          (B) TYPE: nucleic acid
419          (C) STRANDEDNESS: single

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VERIFICATION SUMMARY

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Input Set : A:\-90-2.app

Output Set: N:\CRF3\05172001\H728463B.raw

L:29 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:30 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:111 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=1
L:212 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=7
L:228 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=8
L:244 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=9
L:260 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=10
L:276 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=11
L:292 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=12
L:308 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=13
L:324 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=14
L:340 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=15
L:356 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=16
L:372 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=17
L:388 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=18
L:404 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=19
L:422 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=20
L:440 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=21
L:458 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=22
L:476 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=23
L:494 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=24
L:512 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=25
L:528 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=26
L:544 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=27
L:560 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=28
L:576 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=29
L:592 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=30
L:608 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=31
L:624 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=32
L:640 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=33
L:656 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=34
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L:688 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=36
L:704 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=37
L:720 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=38
L:736 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=39
L:752 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=40
L:768 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=41
L:784 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=42
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L:816 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=44
L:832 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=45
L:848 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=46
L:864 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=47
L:880 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=48
L:896 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=49
L:912 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=50
L:928 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=51

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L:944 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=52
L:960 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=53
L:976 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=54
L:992 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=55
L:2727 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:140
L:2787 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:143
L:6243 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 298



**NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING
NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES**

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821 - 1.825 for the following reason(s):

- ☐ 1. This application clearly fails to comply with the requirements of 37 C.F.R. 1.821-1.825. Applicant's attention is directed to these regulations, published at 1114 OG 29, May 15, 1990 and at 55 FR 18230, May 1, 1990.
- ☐ 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. 1.821(c).
- ☐ 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. 1.821(e).
- ☐ 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing."
- ☐ 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. 1.825(d).
- ☐ 6. The paper copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 C.F.R. 1.821(e).
- ☒ 7. Other: page 38 of the instant specification, lines 16, 17 and 18 contain 4 sequences which are not identified by a SEQ ID tag. Furthermore, on page 163 of the instant specification, lines 24 and 25 contain 2 sequences which are not identified by a SEQ ID tag. Furthermore on page 254-256, SEQ ID NO:s 1-10 do not agree with SEQ ID NO:s 1-10 of the CRF and paper copy submitted with the CRF.

Applicant Must Provide:

- ☒ ^x An initial or substitute computer readable form (CRF) copy of the "Sequence Listing".
- ☒ An initial or substitute paper copy of the "Sequence Listing", as well as an amendment directing its entry into the specification.
- ☒ A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d).

For questions regarding compliance to these requirements, please contact:

For Rules Interpretation, call (703) 308-4216

For CRF Submission Help, call (703) 308-4212

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